

# PATENT ABSTRACTS OF JAPAN

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## (54) ADAPTIVELY VARIABLE DIRECTIONAL ANTENNA

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To execute transmission and reception without being influenced by multipath interference or the same frequency interference, etc., even at transmitting of a wideband signal.

**SOLUTION:** An orthogonal frequency division multiplexing(OFDM) signal received from plural antenna elements 1 of an identical characteristic is supplied for an excitation weight calculating part 3 and, based on the inter-element interval of the elements 1 and the frequency interval of OFDM subcarriers, an excitation weight for controlling excitation of each antenna element and each subcarrier is calculated. The signal received from the antenna elements 1 is given the excitation weight calculated by an excitation weight giving part 4. Thereby, a directional pattern which is optimum in a desired direction is obtained over the entire band of the OFDM signal to execute transmission/reception free from the influence of an interfering wave.

